

DEPARTMENT OF ZOOLOGY				<i>Certificate Course</i>				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
IV	Certificate course		Sericulture	2	2	50	50	100

Course Objectives

To understand the economic importance of sericulture.

1. To discuss the cultivation of mulberry plant and culture of silkworm.
2. To acquire the knowledge on various techniques on sericulture practices.
3. To create awareness and motivates students to become entrepreneurs.
4. To encourage students for self-employment.

Unit	Description	Hours
I	Introduction to Sericulture Importance of Sericulture, Sericulture industry in India, Sericulture as cottage industry, Role of Central Silk Board. Moriculture - Optimum conditions for mulberry growth, Planting material - seedling propagation, vegetative propagation- stem cutting, grafting. Harvesting of leaves, Preservation of leaves, Nutritive value of leaves.	9
II	Silkworm Varieties of silkworm, <i>Bombyx mori</i> : Classification, Life cycle of <i>Bombyx mori</i> - Metamorphosis, moulting, Mature worm, Spinning of cocoon, Pupal stage, Adult moth, Silk glands.	9
III	Silkworm Rearing Rearing house, Rearing appliances, Rearing operations, Brushing, maintenance of temperature and humidity, feeding at different stages, mounting- methods, spinning of cocoons, harvesting cocoons, Cocoon reeling- cocoon stifling- sun drying, steam stifling, three pan system of boiling, Reeling appliance- Country charka	9
IV	Silkworm Diseases Causative organism, mode of transmission, symptoms and control measures: Protozoan disease – Pebrine, Viral disease - Flacherie, Bacterial disease- Septicemia, Fungal disease- White Muscardine. Pests- Indian uzifly-structure, damages caused, control- physical, chemical and biological.	9
V	Marketing and Entrepreneurial Opportunities Cocoon marketing- Commercial characteristics of cocoon, marketing centres. Raw silk marketing: Visual tests, Mechanical tests, Marketing in India. Entrepreneurial Opportunities in Sericulture: Pre cocoon sector, Silkworm seed production, By-product utilization, Post cocoon sector and producing hybrid silkworms.	9

Text Book

1. Johnson, M. and Kesary, M. 2008. *Sericulture*, Fourth edition, CSI Press, Marthandam.

Reference Book

1. Shankar, J.P.A. and Reddy, R. 2009. *Sericulture*, Commonwealth Publishers.
2. Ganga, G. and SulochanaChetty, J. 2000. *An Introduction to Sericulture*, Oxford & IBH Publishing Company Pvt. Ltd. New Delhi.
3. Krishnaswami, S., Narasimhanna, M.N., Surayanarayana, S.K., Kumararaj, S. 1973. *Manual on Sericulture - Silkworm rearing*, UN Food and Agriculture Organisation, Rome.
4. Dandin, S.B., Jayant Jayaswal and Giridhar, K. 2010. *Hand Book of Sericulture Technologies*, Central Silk Board, Bangalore.

Course designers

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